

# UNITED STATES PATENT OFFICE.

THOMAS P. TUCKER, OF INDEPENDENCE COUNTY, ARKANSAS.

## TANNING PROCESS.

SPECIFICATION forming part of Letters Patent No. 229,928, dated July 13, 1880.

Application filed December 18, 1878.

*To all whom it may concern:*

Be it known that I, THOMAS P. TUCKER, of Independence county, Arkansas, have invented certain new and useful Improvements in the Tanning of Skins; and I hereby declare the following to be a full, clear, and exact description of the same, which will enable others to practice the same.

In order to prepare the hides for my process I first submit them to the following preparatory treatment: Soak the hides until they are perfectly soft, and then remove all the flesh. Hard hides should be worked over on the flesh side to soften them. Lime them as follows: To twenty gallons of water add twenty-two quarts of slaked lime and twenty quarts of strong ashes. Handle the hides several times the first two days, then once each day until the hair slips easily. Then remove the hair and flesh carefully, and they are ready for the bate, which is prepared as follows: To twenty gallons of water add one bushel of wheat-bran, four pounds of starch, one peck hen-manure, one pound muriatic acid, and one gallon of buttermilk. Stir the mixture well before putting in the hides. Handle the hides several times a day until they are freed from lime. They will then become soft and flexible. Then place the hides upon a table and work the flesh side with a steel sleek and the grain side with a stone sleek. The lime can be soaked out in clear water, but it will take longer in that way. The skins are now ready for the tan.

I take fifteen gallons of water, five pounds of gambier, three pounds of salt, and one-half pound of alum. When placed in this the hides must be handled constantly for half an hour, and then once in every two hours until colored. After this handle the hides once a day until the grain is thoroughly tanned. After being tanned put the hides in a liquid made as follows: fifteen gallons of water, fifteen pounds of gambier, seven pounds of salt, two pounds of muriatic acid, and one and one-half pound of alum. This may be strengthened as it becomes weak by adding the ingredients in the named proportions. Then, for the purpose of filling and hardening the leather, immerse the hides in a liquid composed as follows: fifteen gallons of water,

ten pounds of gambier, ten pounds of extract of hemlock, one pound of saltpeter, and one-half pound of borax. Half the quantity of water will do if strong bark-ooze is used in place of the hemlock. Be sure that in all cases the ooze is strong when the leather is taken out of it. Next haul the leather and throw it in a pile to drain. The ooze may be allowed to drain back into the vat.

When the hides are drained, place them on a table and set them out thoroughly on the flesh side with a steel sleek, brushing in at the same time a clear weak lime-water. Then set them out on the grain side with a stone sleek, brushing in a tolerably strong sal-soda water. Then hang them up to dry. When nearly dry, set out again with a stone sleek and oil lightly on the grain side. Hang up the skin in the shade until it is perfectly dry. This produces a fine quality of sole-leather.

In tanning uppers, harness and skirting leather, and small skins, handle the hides often—the oftener the faster they will tan. When the tan is struck thoroughly through, drain, set out, and neutralize, as first directed.

Oil your uppers, harness-leather, and skins on the grain side. After being well set out, hang the skins in the shade to dry. When the oil has struck in, stuff the leather and skins above named on the flesh side. Then place equal parts of oil and tallow mixed on the flesh side about one-fourth the thickness of the leather. Then hang in the shade to dry. Then lay the leather on a table and remove the stuffing. Then take the leather to the whitening-beam and take a small shaving off of every part. Then place the leather on a table, flesh side up, rub off the loose particles, and apply blacking compound made as follows: one quart of oil and one gill of tan-ooze mixed together. Then stir in one-half of a small paper of lamp-black. After this is dried in, apply a slight coat of paste. When dry add another coat, half paste and half gum-tragacanth. When dry sleek off with a glass sleek.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The process of bating and tanning hides, consisting in treating them, first, with a liquor composed of water, wheat-bran, starch, hen-

manure, muriatic acid, and buttermilk; second, with a liquor composed of water, gambier, salt, and alum; third, with a liquor composed of water, gambier, salt, muriatic acid, and alum; fourth, with a liquor for "filling" and hardening the leather, composed of water, gambier, saltpeter, hemlock, and borax, all in the proportions substantially as described.

2. The process of bating and tanning hides, consisting in treating them, first, with a liquor composed of water, wheat-bran, starch, hen-manure, muriatic acid, and buttermilk; second, with a liquor composed of water, gambier, salt, and alum; third, with a liquor composed of water, gambier, salt, alum, and muri-

atic acid, all in the proportions substantially as and for the purpose described.

3. The process of tanning bated hides, consisting in treating them, first, with a liquor composed of water, gambier, salt, and alum; second, with a stronger liquor composed of water, gambier, salt, alum, and muriatic acid; third, with a liquor for filling and hardening the leather, composed of water, gambier, saltpeter, hemlock, and borax, all in the proportions substantially as described.

THOMAS P. TUCKER.

Attest:

ELISHA BAXTER,  
ED. W. THOMPSON.